From: Reuben Williams [nreubenwilliams1105@gmail.com]

Sent: 2/17/2016 11:33:05 AM

To: Jeffrey R Marcell (Generation - 3) [/O=DOMINION/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Jeff136]

Subject: Fwd: Outfall 010 Plugging Thoughts

Attachments: image001.png; ATT00001.htm; image002.png; ATT00002.htm; image003.png; ATT00003.htm; image004.png;

ATT00004.htm; image005.png; ATT00005.htm; image006.png; ATT00006.htm; image007.png; ATT00007.htm; Existing Inlet Dimensions.pdf; ATT00008.htm; Possum Point Pipe Grouting WP1 RRB Comment.pdf; ATT00009.htm;

Pipe Plug Perlim RRB.pdf; ATT00010.htm

Sent from my iPhone

Begin forwarded message:

From: John Glover < jglover@gloverconstruction.com >

Date: February 17, 2016 at 8:33:14 AM EST **To:** rwilliams@gloverconstruction.com

Cc: Merit Cross < mcross@gloverconstruction.com > Subject: Fwd: Outfall 010 Plugging Thoughts

Well we are still at the same conclusion about them after these comments...

Take a look I will go through it when I finish the morning meeting.

Thanks John Glover (252)676-9003

Sent from my iPhone

Begin forwarded message:

From: Scott Quinlan <s.quinlan@gaiconsultants.com>

Date: February 17, 2016 at 7:57:52 AM EST

To: 'John Glover' < jglover@gloverconstruction.com>

Cc: John DeBarbieri <J.DeBarbieri@gaiconsultants.com>, John DeBarbieri <J.DeBarbieri@gaiconsultants.com>

Subject: Outfall 010 Plugging Thoughts

John:

Pursuant to our discussion this morning, our overall comments are as follows:

- <!--[if !supportLists]--><!--[endif]-->We would like to use the existing sump at the inlet; a bulkhead should be included on the upstream end (see attached sketch). Otherwise, the proposed sump pumps for our permanent solution may not work properly.
- <!--[if !supportLists]--><!--[endif]-->The 2" pipe is too small to pump the grout efficiently.
- <!--[if !supportLists]--><!--[endif]-->We recommend pumping from the high end to low end to fill the pipe.
 130± cy of grout will be needed to fill the pipe and this will take at least 4 to 6 hours to place and the concrete with have begun to set in the pipe.

<!--[if !supportLists]--><!--[endif]-->In order for the Steel Plate and dead man concrete to work the concrete will need to be cured to some point and there may be shrinkage around the steel plate. There are also concerns about the dead man (what is the width?) creating additional land / wetland disturbance and also the bearing pressure would be low and cannot be evaluated properly without a geotechnical evaluation. We suggest an alternate cast-in-place concrete plug (see attached example; the notes are not finalized, however).

Our other comments on the work plan are attached.

Sincerely,

Scott C. Quinlan, PE

Director - Energy Water Resources Engineering and Planning

GAI Consultants

500 Cranberry Woods Drive, Cranberry Township, PA 16066 D 412.399.5385